

~~SECRET~~NPIC/TSSG/RED-107-70  
3 April 1970

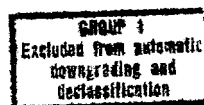
MEMORANDUM FOR: Chief, Technical Services &amp; Support Group, NPIC

ATTENTION : [REDACTED] TSSG/FPS

SUBJECT : RED Monthly Report on Significant Events (March 1970)

A. Significant Items of Interest for March 1970.

1. [REDACTED] presented a talk, film and demonstration of DILUX material to NPIC personnel. Two of their latest materials, as well as some full color possibilities, were presented. The loan of a DYLUX processor from [REDACTED] is being arranged so that NPIC PI's can give an Operational Evaluation of the various materials marketed by [REDACTED]
2. Calibration Device. The Calibration Device for the [REDACTED] Stereocomparator has been presented to NPIC personnel. [REDACTED] was briefed on 26 March. The Staff Study has been forwarded.
3. Computer Core Memory. The Staff Study for the Additional Computer Core Memory for the [REDACTED] Stereocomparator has also been forwarded to the DDI for approval.
4. High Precision Stereocomparator Program. [REDACTED] Project Manager is at [REDACTED] and expects to start the acceptance tests on the optics on 31 March 1970. If all goes well, the tests will be completed by 17 April, and the optical system shipped to [REDACTED] on 28 April 1970.
5. Basic Research in Precise Measurement. Proposals have been evaluated; the briefings and paper work are being prepared.
6. PI Scan & Search Station, Phase II. Proposals and cost breakdowns to fabricate the PI Scan & Search Station have been received. The proposal information has been presented to the coordinating committee.
7. Step & Repeat Contract Printer. A proposal has been received for the preliminary design of the Step and Repeat Contract Printer. This is currently being coordinated with PSG.

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8. 1540 Light Table. The prototype models of the 1540 Light Tables have been delivered by [REDACTED]. The tables are being evaluated in TSSG/ESD. Technical specifications are being prepared for the follow-on production models. 25X1A
9. Advanced Stereo Rhomboids II. The Advanced Stereo Rhomboids II have been delivered by [REDACTED]. This item is being tested and evaluated in TSSG/ESD. Technical specifications have been prepared and turned over to TSSG/SC&PS for the production models. 25X1A
10. 940 Light Table. A Project Approval Request for a vibration analysis of the 940 Light Tables has been prepared and forwarded to Chief, TSSG.
11. Low Power Objectives. A proposal to determine the feasibility of providing low power objectives for the Advanced Stereo Rhomboids II has been evaluated. The approval memo has been forwarded to Chief, TSSG.
12. Retrofit Film Transport Kit. On March 26, the Retrofit Film Transport Kit was accepted at [REDACTED]. The kit (mounted on a GFE MDM #4 Light Table) will be delivered to NPIC in early April. 25X1A  
25X1A
13. Wide Field [REDACTED] Eyepiece. The Wide Field [REDACTED] Eyepiece for the High Power Stereoviewer was completed by [REDACTED] and was delivered to NPIC on 30 March 1970. 25X1A
14. Improved Lamp Performance Study. The contract for the Improved Lamp Performance Study with [REDACTED] was signed on 6 March 1970. 25X1A
15. Eyepiece for Zoom 240. A proposal for a Wide Field [REDACTED] Eyepiece for the Zoom 240 was received from [REDACTED] and evaluated. 25X1A  
25X1A  
25X1A
16. 10" x 10" Stage Stereocomparator. A revised proposal for a 10" x 10" Stage Stereocomparator was received from the [REDACTED] and evaluated. 25X1A
17. Measurements of Threshold Targets. On March 20, discussions were held with [REDACTED] of RADC and representatives from [REDACTED] regarding the study sponsored by RADC on Measurements of Threshold Targets. The study will be beneficial to NPIC; NPIC will give limited support to the task. 25X1A  
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18. Image Quality. On 12 March a conference was held between Drs. [REDACTED] and ATB personnel regarding Image Quality Tasks on which the [REDACTED] may be able to assist NPIC. [REDACTED] is coordinating efforts in this area. 25X1A
19. GMS Assistance. On the 16th of March, [REDACTED] of CMS/PPS met with [REDACTED] regarding CMS assistance to ATB in several areas. 25X1A
20. Digital Image Manipulation System. On 24 March, [REDACTED] decided from several alternatives to install the Digital Image Manipulation (DIM) Input/Output System in Room 4B307. The system will be located with a 11 X 11 foot portable laminar flow clean room. The completion date is presently set at 30 May to accommodate the receipt of the equipment from [REDACTED] 25X1A
21. [REDACTED] 940 Light Table. [REDACTED] of EL/ATB have been performing spectrographic and chromatographic analyses of cooling oil in [REDACTED] 940 Light Tables. Preliminary results indicate the oil may be changing color due to UV and thermal breakdown problems. Continuing tests in conjunction with ESD are aimed at isolating the effects causing such color changes. 25X1A
22. UV Emission. ATB has received the final results of a test performed by the National Bureau of Standards on UV emission from a [REDACTED] 940 Light Table. These indicate no significant emissions below 3650 Å and approximately 1 micro-watt 1 cm<sup>2</sup> at that value. Further data can be obtained from ATB memo 072/70 dated 26 March. 25X1A
23. Contact Lens Acceptance Survey. [REDACTED] has analyzed the results of a Contact Lens Acceptance Survey conducted in IEG thru ATB at the request of [REDACTED] Results are tabulated in ATB-064/70 of 26 March. 25X1A
24. DD&T Support. [REDACTED] is continuing on a full-time one-month project special support to DD&T in the area of Image Manipulation. 25X1A
25. Behavioral Sciences. On 25 March, [REDACTED] visited [REDACTED] Chief of the Technical Analysis Division, National Bureau of Standards. [REDACTED] division contains several elements of interest to ATB, including a Behavioral Sciences Group headed by [REDACTED] 25X1A

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25X1A [REDACTED] The T. A. Division also possesses resources in  
25X1A statistical analysis and operation research which may be applied  
to our problems. Follow-up actions are planned with meetings  
between [REDACTED] and the NBS Behavioral Sciences personnel.

26. Image Comparison Microstereoscope. Final alignment of all four  
optical paths has started; however, concurrent check of the  
anamorphic subassemblies has just revealed the presence of  
astigmatism in 3 of the 4 paths. [REDACTED] is checking 25X1A  
the anamorphic prisms against the specs and refabrication may  
be necessary. This would delay delivery a number of weeks. The  
Project Officer will visit [REDACTED] on 13 April, with our consultant, 25X1A  
[REDACTED] and review the problem. 25X1A

27. Automatic Stereo Scanner. On 26 March 1970, a briefing was  
given to [REDACTED] recommending an Engineering Audit by [REDACTED]  
in lieu of continuing the development. It was decided to  
pursue both the Engineering Audit and a [REDACTED] test and simula- 25X1A  
tion on the [REDACTED] Stereo Comparator, as preludes to  
completion of the Automatic Stereo Scanner. Meetings were  
held at NPIC with [REDACTED] in preparation for 25X1A  
this test proposal (expected in early May 1970). Arrangements  
were made to discuss with [REDACTED] their proposal on 7 April 1970 25X1A  
at NPIC. We are working towards starting both efforts by  
1 June 1970.

28. Stereogram Printer Optical Development. [REDACTED] is continuing two 25X1A  
optical approaches--one approach with prismatic anamorphosers  
and another utilizing cylindrical elements. It is anticipated  
that a selection can be made in April. Relaxation of magnifi-  
cation and anamorphic specs was considered, but will be reserved  
as last resorts. A draft of the revised statement of work was  
reviewed, but has not yet been received in final form.

29. Briefings.

25X1A [REDACTED] an RED consultant from the National Bureau of  
Standards, presented a briefing to interested NPIC personnel  
on 10 March on Color Perception in the Center Auditorium.

25X1A [REDACTED] briefed ten R&D personnel from NRTSC on Image  
Manipulation on 18 March.

25X1A On 19 March, [REDACTED] personnel briefed [REDACTED] and Group  
Chiefs on the Mid-70's PI Workstation. 25X1A

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On 9 March, [REDACTED] presented a briefing to [REDACTED] proposal for study of Electronic Image Displays.

On 24 March, [REDACTED] presented a briefing on the Adage proposal for Interactive Display System. Following this, on 23-27 March, [REDACTED] showed a movie of RED's Adage demonstration to several NPIC personnel including [REDACTED]

On 27 March, [REDACTED] showed this same movie of RED's Adage demonstration to DIA personnel in [REDACTED]

On March 31, [REDACTED] presented a briefing to [REDACTED] TSSG, and [REDACTED] PPBS, on the Viewing Systems Study.

30. Training.

[REDACTED] attended the Offutt FI Course from 2-6 March 1970.

[REDACTED]  
Deputy Chief, Research & Engineering Division, NPIC

Attachment:  
TCS-6627/70

Distribution:  
Original - NPIC/TSSG w/att.  
2 - NPIC/TSSG/RED w/o att.

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